

ICE BREAKER

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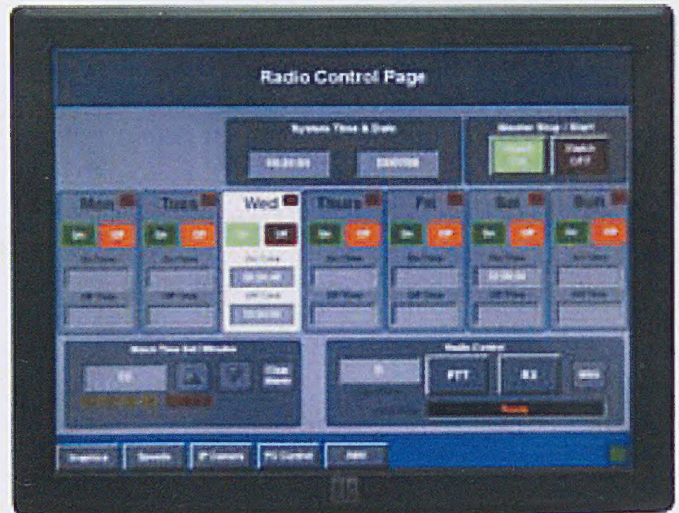
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Lone Worker Monitoring System

The system, as designed and supplied by Marcom Watson, has been developed to reduce risk and improve safety in the workplace. It is ideal for personnel working in hazardous environments and those that may be the sole employee onsite outside normal business hours.

The monitoring system utilises two-way radio operation to confirm the person being monitored is active and is responding. It requests that an operator press the PTT button on the selected handset / mobile radio at a regular intervals and acknowledge an automatic voice page from the base radio.

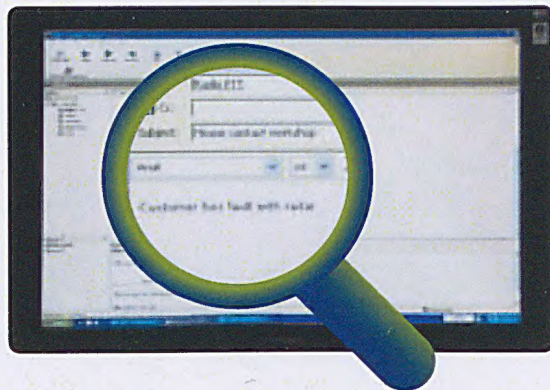
In the event there is no response to the page, an alarm event will occur after five consecutive non-responses. The system will start a dial sequence to a designated list of phone numbers and will replay a recorded voice message to alert supervisors of the failed response.



Text to Speech Engine

The system has been developed to provide a flexible communication solution that integrates and adds value to existing systems. The Text to Speech Engine provides personnel with greater access to radio communications with workers out in the field.

Using any standard email program you are able to send an email as text to a pre-configured email address that will redirect your email as voice over the radio system. Radio will generate an email response when the message has been received.



Radio System Integration Modules

Further systems can be integrated with the **Lone Worker Monitoring System** and **Text to Speech Engine** to enhance operation.

- Pre-recorded Announcements (wav files or text)
- Low Level Contact Interface
- Email and Data Logging
- PC Application Integration e.g. launch web page



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editorial

The most debated topic at the moment is the potential reduction of the Hobart Port area to make way for other projects, and congratulations must go to the Tasmanian Polar Network for their opposition to these plans. I believe that, as a major resupply port for Antarctic and Southern Ocean shipping, the vision of Hobart with only 'boutique port' facilities would be very detrimental to the existing and future goals of the TPN and maritime industries.

There have been several changes to regular contributors to IB this edition. Paula Wriedt, Minister for Antarctic Tasmania was unable to contribute to this edition, and changes to Liberal Party portfolios means we welcome back Will Hodgman. A leadership change to the Greens Party means we welcome

Cassy O'Connor for comments on Antarctic matters. Wayne Tucker, CEO of Hobart International Airport will be resigning to pursue other interests by the end of this year, and TPN's AGM this month may introduce some new members to the committee. Thanks to all those who have contributed to Ice Breaker.

This edition's special news concerns the distribution of Ice Breaker to every Tasmanian Secondary school, thanks to a private sponsor. A full year's subscription to the magazine will give students an introduction to the range of Antarctic activities and careers now available, and we look forward to their contributions to IB as well.

Anthea Wallhead

Editor, Ice Breaker Magazine

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Cover: Klaus Arne Pedersen

Back Page: Stamp covers supplied by Klaus Arne Pedersen.

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Full Page	210 W x 298 H
\$300, \$240 (b&w)	
Half Page	210 W x 149 H
\$220, \$176 (b&w)	
Third Page	210 W x 100 H
\$130, \$105 (b&w)	
Quarter Page	90 W x 140 H
or Double Column	130 W x 140 H
\$90, \$75 (b&w)	
Single Column	60 W x 140 H
\$80, \$65 (b&w)	
Spot Advertisement	60 W x 70 H
\$50, \$40 (b&w)	

All quoted Rates are for a single edition only and include GST. Discounts available for bulk bookings.

subscriptions

Australia wide	\$30.00
International	\$40.00

(All prices AUD and inclusive of GST where applicable)

Unless specifically stated otherwise, the views expressed in this magazine are not necessarily those of any group, organisation, or institution. ICE BREAKER is published in good faith and all contributors should ensure the truth of any facts stated.

ICE BREAKER magazine is published independently by Icewall One as a quarterly magazine covering Tasmanian Polar and Southern Ocean related topics.

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Will Hodgman

It does not make any sense to put this vibrant economic engine in jeopardy...

Hobart contains an outstanding deep water port which is a major asset and key facilitator of economic development. Indeed, the number and satisfaction of Antarctic sector organisations using Hobart as a base for their operations and resupply activities is growing rapidly and in 2006-07, the value of Hobart-based Antarctic operations alone was \$147.7 million.

The port needs certainty and concerns are mounting that a new hospital on the waterfront will not be able to co-exist with a working port.

While the State Opposition has been highly critical of the lack of progress in redeveloping Hobart's Sullivan's Cove waterfront area, and particularly the State Government's failure to engage the private sector, development should not occur at the expense of Tasmanian business or the Hobart Port itself.

We certainly do not contend that the redevelopment of the Hobart waterfront

be undertaken in a rushed or ad hoc way. However, after ten long years of little happening, it is understandable that the community has become increasingly concerned that appropriate development actually start happening, and in a way that enhances the value of this great asset, and preserves its exceptional features for future generations.

It does not make any sense to put this vibrant economic engine in jeopardy, particularly when we are at such a preliminary planning phase for this major development and should therefore be able to look comprehensively at all the options rather than making rushed decisions.

The State Opposition is extremely fearful that Hobart will lose to Western Australia its position as an international gateway to the Antarctic and Southern Ocean region.

Due to its unique geographic location approximately 1,848 nautical miles from Casey Station, with access to Macquarie

Island and the extensive East Antarctic region, Hobart is a natural base for replenishing East Antarctic stations and bases.

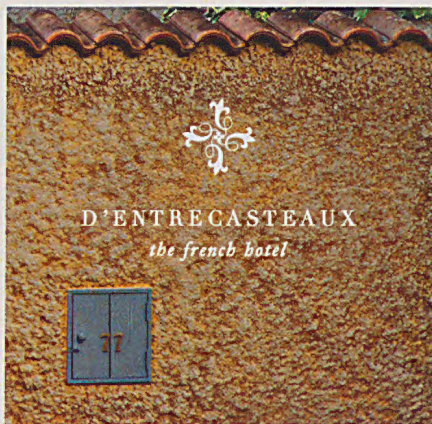
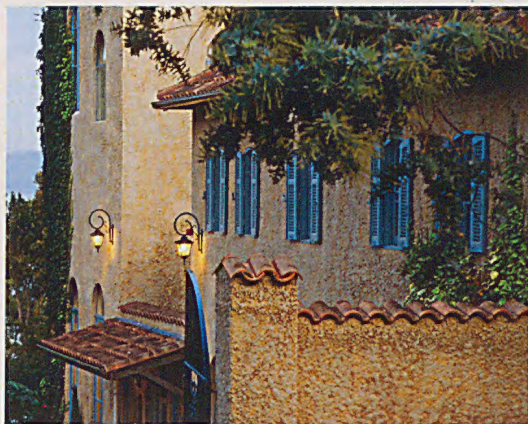
The loss of the port would significantly impact upon the city's reputation as the best equipped port for Antarctic ships which service Australian and French bases, particularly when it is likely that the Russian and Chinese governments will choose Hobart to equip and 'overwinter' their Antarctic vessels next year.

As Tasmanian Polar Network chairman, Bill Lawson, has said, whilst we are steadily building Hobart's profile as an Antarctic hub, to now turn around and say that we do not want these ships in Hobart is extremely foolish and a major threat to business confidence in the State.

Will Hodgman

Leader of the Opposition

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Cassy O'Connor

...it is a great privilege to be given portfolio responsibility for Antarctic Affairs...

Icebreaker readers would be aware that Greens' legend Peg Putt has retired from the frontline of Tasmanian politics. After fifteen years dedicated hard work for Tasmania and its people, Peg is now taking a well earned rest but, once a campaigner always a campaigner, so I have no doubt Peg will continue to stand up for the environment in whatever future role she takes on.

As the new Greens' Member for Denison, it is a great privilege to be given portfolio responsibility for Antarctic Affairs by my colleagues. I relish the prospect!

I was just a few days into the job when the Royal Hobart Hospital Redevelopment Project, proposed for the Railyards' site, again raised its head. Ever since the former Premier Paul Lennon announced the government's plan in April 2007 to build a hospital on the waterfront, alongside a working port, I have been sceptical. It always struck me as an odd juxtaposition of land uses, existing and proposed. Indeed, I am not alone if the volume and intensity of letters to the editor, and talkback calls, is anything to go by. Also raising legitimate concerns, TasPorts, port users and the Tasmanian Polar Network (TPN) who fear the working

port's capacity to function in future will be compromised.

I recently read the TPN submission to the Hobart Railyards Urban Design Strategy, and was impressed by the enormous contribution made by the Antarctic Sector to Tasmania's economy. This may be 'old news' to Ice Breaker readers, but the 2006-2007 Antarctic Expenditure Survey reveals at least \$147.7 million is injected into the local economy by Antarctic-related endeavours. That's almost 150 million good reasons to think very carefully about the best way to manage Hobart's waterfront. Any planning proposal that potentially limits future expansion of our Antarctic science, supply and support capacity is simply unacceptable.

In the Tasmanian Greens submission to the Urban Design Strategy, I raised the issue of the apparent competing needs between the port and the proposed new hospital. With confirmation that the Russians are looking very seriously to Hobart as an Antarctic supply base, I also pointed out the potential folly of the government's plan. To be sure, there will have been a number of submissions raising the same concerns.

Hopefully the State Government is listening. It is so far showing no signs of budging, or even reconsidering its choice of the Railyards as the preferred hospital site. I am certain there will continue to be considerable public pressure applied.

In closing, I'd like to invite readers who feel there's something I need to know, or just information you would like to share, to please get in touch. Our office number is 6233 8300, or you can email me at greens@parliament.tas.gov.au

While I have long been passionate about Antarctica and fascinated by the science, now I have a position of responsibility towards Antarctic Affairs. I know there's an enormous amount to learn about the icy wilderness, and the people fortunate enough to work towards its protection and the furthering of our scientific understanding. Looking forward to the journey.

Cassy O'Connor MP

Tasmanian Greens Spokesperson on Antarctic Affairs

Polar News

Runway builder gets top honour

Matthew Filipowski, the man most responsible for the construction of an historic ice runway in Antarctica, has been honoured for his work by receiving the Australian Antarctic Medal from Governor-General Michael Jeffery. Mr Filipowski said it was a long process, starting in 2002-03 and finishing in 2007, with unique challenges which he and his crew had to overcome.

Federal Environment Minister Peter Garrett, who was on the first flight from Australia to Wilkins in December, also praised Mr Filipowski for his work in

opening up new capabilities for Australian Antarctic research.

Climate Changer

Chief Executive Officer of the Antarctic Climate and Ecosystems Cooperative Research Centre at the University of Tasmania, Dr Bruce Mapstone, has been appointed Director of The Centre for Australian Weather and Climate Research.

Bruce's appointment follows the establishment of The Centre last year under the leadership of Chris Mitchell as Foundation Director. Dr Mapstone's research interests include environmental impact assessment, fisheries dynamics and management, and

the theory and practice of Marine Protected Areas. He has a strong interest in delivering research outputs to stakeholders beyond traditional research communities. Bruce has chaired and served on several advisory committees to the Australian or state government agencies, including climate change and Antarctic research.

Bruce will take up the role on 3 November 2008, and will be based in Hobart, with an office in Collins Street. In Melbourne he will spend time at both Collins Street and Aspendale. Prior to his commencement, Tom Keenan will be Acting Director.



Bill Lawson

...consider the scenarios of such new developments impacting on the port's future.

We're now getting close to spring and all the usual activity that brings for the next summer season. Since my last message the annual Midwinter Festival has come and gone and what a success it was! Thanks are due particularly to Paul Cullen and his team who took it on again this year and produced a terrific set of events in a relatively short period of time. Well done, Paul! Also it is appropriate to recognise Jane Crosswell from Red Cross who this year joined forces with the MWF to organise and promote the 'Fire and Ice Dinner and Ball' as the opening event to the Festival at Wrest Point. This was a strategic step directed at widening the support base for the annual Midwinter Dinner beyond the traditional 'Antarctic Family' by including a wider cross section of the community. The event was very spectacular and successful both in its own right and as significant fund raiser for Red Cross. Plans are in hand to repeat the event again next year.

The issue of the future of the Port of Hobart has dominated the TPN's activities over the past quarter with formal inputs being made to both the Sullivans Cover Planning Authority and the Royal Hobart Hospital Project Team. There has been wide media coverage to the need to pre-

serve and enhance the Port of Hobart and the TPN has been active in supporting several of its members whose businesses depend on the Port. It seems inconceivable to me that we would not truly treasure the heritage of our wonderful natural port and hand it on to future generations as a functional facility for future uses which are not yet known to us. I hold real concerns regarding the compatibility of either hospitals or hotels as neighbours to the working port. I believe that we need to encourage those people with responsibility for the development of Sullivans Cove and the new RHH to carefully consider the scenarios of such new developments impacting on the port's future. I believe we must hand on our heritage in a manner that gives future generations the ability to respond to the needs of their days which are not now known to us.

In the last quarter the TPN was pleased to assist one of our members, Irina Gan, in her planned travel to St Petersburg to visit the Russian Antarctic Expedition which is based there. Irina took with her a formal invitation and a TPN Members' capability statement for the Russians to consider Hobart as their base in the Southern Hemisphere. She received such a positive response that we are now plan-

ning a formal invitation to the Russians to visit us to enable us to fully explain and demonstrate our many capabilities. I am very optimistic about this prospect and thank Irina for her good work. Interestingly, this is a very good example of why we need the Port of Hobart enhanced, not reduced.

Also in the last quarter, one of our members, John Brennan of Veolia, was able to join a HCC sponsored team visit to Brest for the Wooden Boat Festival there, as a means of consolidating the connection between the TPN and Hobart to the French Antarctic Expedition which is based in Brest. John was already travelling through Europe and we were pleased to be able to help him add this commit to his itinerary. I remind members that we must value and enhance our connection with the French who are already committed to Hobart; we must not presume them continuing to do so. Thanks to HHC as well as John and Veolia for making this connection possible.

Bill Lawson

TPN Chairman

Polar News

New Chilled Cognac

French house Godet is launching a new Cognac worldwide in October 2008 called Antarctica, designed to be enjoyed ice cold. The new product aims to celebrate the South Pole expedition of Jean-Jacques Godet, the 13th generation of the Godet family who is now President of the company. Godet returned to France with the idea of a purer Cognac celebrating the untouched environment of the South Pole.

For details, contact Jean Edouard Godet, tel: +33 6 23 26 20 84, or e-mail

jeg@cognacgodet.com or godetexport@cognacgodet.com

Cost of fuel hits Antarctic science

With fuel prices as high as \$52 a litre by the time it is delivered, petrol in Antarctica was the biggest issue on the agenda at recent meetings of the Council of Managers of National Antarctic Programs (COMNAP) held in Russia.

The head of the United States' National Science Foundation office of polar programs Dr Karl Erb said the rising cost of fuel and the falling value of the US dollar were primarily to blame for the

\$US32m (\$NZ41.4m) deficit and significant cuts needed to be made in virtually every aspect of the US Antarctic program.

Antarctica New Zealand chief executive Lou Sanson is also in consultation with the United States on the implications of the budget cuts for New Zealand, because they were totally dependent on USA for fuel and for shipping. Antarctic-related activities are estimated to directly contribute \$88m to the Canterbury economy annually and in excess of \$133m to the New Zealand economy as a whole.



Rob Valentine

...organisations involved certainly appreciate the opportunity to use Hobart as a base...

In July a delegation from the Hobart City Council visited Brest in France, this particular city being home to the various research organisations associated with the French Antarctic program.

Members of our delegation met to receive a briefing from the Institute Paul Emile-Victor (IPEV) and also the regional maritime cluster TECHNOPOLE. The briefing included an insight into their Antarctic programs and other maritime-related activities. It was quite clear that the organisations involved certainly appreciate the opportunity to use Hobart as a base for their Antarctic programs. The value of these Antarctic programs to Tasmania and indeed the Southern Region is not insignificant. I believe such activity can only strengthen over the coming years if

we all do our best to promote our competitive edges with respect to the Antarctic, especially Hobart being the second deepest natural port in the world.

I understand other countries have been canvassed regarding the possibility of using Hobart as a base for their Antarctic programs. This can only further assist in building a valuable profile leading to future growth in the Antarctic and Southern Ocean research sector.

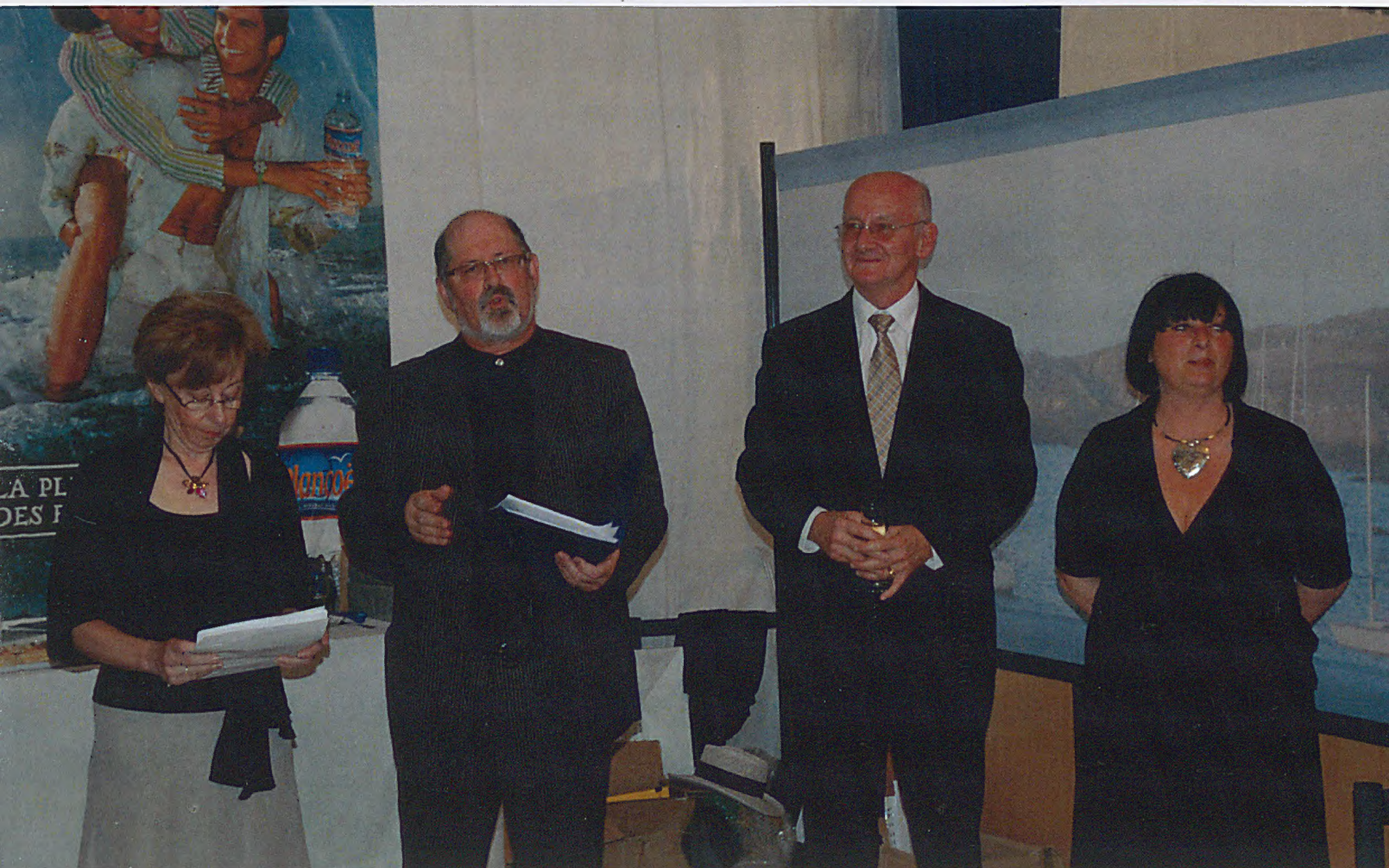
As the Institute of Antarctic and Southern Ocean Studies was a part of our delegation, they had a great opportunity to promote the educational and research opportunities that the University of Tasmania can offer in this important sector, strengthening even further our Antarctic connections.

In order to realise real growth in the Antarctic services sector, it is important that all players work strategically together in order to yield the greatest community benefit. Council saw it as important to be able to help facilitate the promotion of the Antarctic Gateway during our visit to Brest and looks forward to seeing the sector expand in the future.

Alderman Rob Valentine

Lord Mayor, Hobart

L-R: Diane Bye, Hon Consul of France in Tasmania, The Lord Mayor of Hobart, Alderman Rob Valentine, Mr David Ritchie, Australian Ambassador to France, Laurence Landry, Metropole Oceane, Brest





Ben Galbraith

Plans for a second International Sub-Antarctic Forum ... are well underway.

International Antarctic Treaty Meeting

Ben Galbraith attended the Antarctic Treaty Committee Meeting (ATCM) in Kiev from 2 – 13 June. Relevant outcomes from the meeting included:

- China's Comprehensive Environmental Evaluation for the establishment of Dome Argus was presented to, and accepted by parties to the Antarctic Treaty, clearing the way for them to commence activities leading to the construction of the station this summer. China considers this site important for research into climate and environmental change and intends to support a range of high value research including drilling for deep ice cores, atmospheric monitoring, astronomy and geological surveys. Situated 1200km inland from the Larsen Hills coast, this extremely isolated site will take up to two years to develop and will support 15 to 20 people each summer in the short-term and 25 annually, within five to ten years.
- To secure their long-term strategic interests in Antarctica, Russia is increasing their funding for logistics and plan to build a new icebreaker to support their Antarctic program. Preliminary discussions were held with the Russians at the ATCM meeting regarding the new ship visiting Hobart on a twice yearly basis. In support of the proposed visits, the TPN developed a proposal that was presented to Russian Antarctic representatives by a Russian TPN member at the SCAR meeting held in St Petersburg in July.
- India's plans to construct a new station in East Antarctica are progressing with site preparations taking place during 2008 – 2009. Construction will take place in 2009 – 2010, with plans for the station to be fully operational by 2011.
- South Africa has had the budget approved to build a new Antarctic

vessel to support their national program. They are currently working on design specification and expect to conduct an international tender in early-mid 2009.

Conservation of Albatrosses and Petrels Headquarters Agreement

On Monday 23 June, Hobart officially became the home to the secretariat on the Agreement for the Conservation of Albatrosses and Petrels (ACAP), with the signing of the historic Headquarters Agreement for ACAP by the Director of the Australian Antarctic Division, Dr Tony Press and the Acting Executive Secretary of ACAP, Warren Papworth. The Agreement is the culmination of lengthy negotiations between the Government of Australia and ACAP international secretariat and formalises the home of the secretariat in Hobart, which has been the interim host since 2007, with Antarctic Tasmania providing services and accommodation.

Marine Science Fellowships

On Wednesday 23 July, the Minister for Department of Economic Development and Tourism, Paula Wriedt, awarded the Tasmanian Marine Science Fellowships to three students from the University of Tasmania.

Now in its third year, this award in the field of Marine and Antarctic Sciences, is a collaborative effort between the Tasmanian Government, the University of Tasmania and the Embassy of France in Australia. The award enables early career researchers to travel to France to undertake study missions and acquire specific training or qualification; strengthen cooperation and expand international networks; and gain recognition for their work.

Applications are open to Tasmanian postgraduate students, young researchers and scientists working in marine science. Applicants are requested to submit a project proposal in conjunction with their Australian institution and current or potential French collaborators/partners. A total of AUS\$15,000 is awarded each year.

The 2008 Fellowship recipients are:

- Miss Helena Phoenix Baird whose project is entitled: Population dynamics of amphipods common to the Antarctic near-shore benthos.
- Ms Joana C. Cubillos who will continue her work in Coccolithophores evolution and calcification patterns of the late Quaternary in the Southern Ocean.
- Mr Martin Marzloff whose project is entitled: Dynamics of rocky reefs and fishers in eastern Tasmania: Modelling using a complex systems approach.

Sub-Antarctic Forum

Plans for a second International Sub-Antarctic Forum to be held in Hobart during 26-27 April 2009 are well underway. This Forum will build on discussions held at the 1st Forum held in July 2006 and will be titled: The Sub-Antarctic system: Past Present and Future. It will highlight environmental change in the Sub-Antarctic, which comprises a distinct domain that has its own unique character, scientific significance and management issues.

Day One's theme will be Overview of the Sub-Antarctic System (Biota and Physical World) – with the morning session covering change in the Sub-antarctic system during the recent past – circa 1800 to mid 20th Century, and the afternoon – Change in the Modern Era of Science and Environmental Consciousness.

On Day Two the conference will explore dynamic interactions in the Sub-Antarctic system including: Atmosphere, Water and Land, and Managing and Adapting to environmental and ecological changes.

The final session will discuss what the future holds for the Sub-Antarctic and is titled: A Mirror on the Future.

For further information see: www.sub-antarctic.org

Ben Galbraith

Director, Antarctic Tasmania

Midwinter Highlights

by Paul Cullen

This year's Antarctic Midwinter Festival, ten days of Antarctic science, discovery, events and celebrations included:

- Children from Hobart schools participating in arts workshops, the Parade of the Snow Petrels and the Cool Schools science competition, visiting the 'Islands to Ice' exhibition at TMAG, 'Mapping Our Backyard Exhibition' at the National Archives of Australia and the 'Sydney of the Antarctic' exhibition at the Hobart Public Library.

Tourism Tasmania and The Sunday Tasmanian, which distributed 60,000 copies of the Midwinter Festival Program state-wide. Print media interest came from the Australian, the Sydney Morning Herald, the Age and the Australian Financial Times. Enquiries came from as far away as Switzerland and Tahiti and the Festival website counted nearly 30,000 individual visits.



gave special commendations to another Todor Iolovski image, 'At the Fringes of the Earth' and Grant Dixon's 'Patagonian Halo'.

This year, two of the prizewinners are currently serving at Australian Antarctic bases and were given permission by AAD to transmit their images by satellite and submit them for entry. Todor Iolovski is a Bureau of Meteorology technician at Casey Station and Gary Miller is a biologist at Mawson Station. Sponsors, volunteers and Chairman of Judges Sir Guy Green were on hand for the awards announcement at the Waterside Pavilion, Mawson Place, where more than 1,990 people had attended the exhibition.

All prizewinners and finalists were exhibited at the Wilderness Gallery, Cradle Mountain until the end of July.



- The community supporting the outdoor public events, including the NAB Huskies' Picnic at St David's Park and the Midwinter Solstice Party in Salamanca Square. Thousands saw the Extreme Environment Photographic Exhibition at Mawson Place, and hundreds more attended the Ice Cold Facts Antarctica Science Show, the Midwinter Fire & Ice Dinner at Wrest Point and the Phillip Law Lecture at CCAMLR.

- The Longest Night Film Festival at the State Cinema close to selling-out over eight screenings on the weekend and breaking new ground in bringing rare archival footage and leading edge documentary into public view. With the co-operation of the ACE-CRC, the Australian Antarctic Division, Winning Post Productions and the National Archives of Australia, two programs unique to Tasmania and the Antarctic community were produced here.

- Media coverage given by ABC-TV, Southern Cross, WIN-TV, ABC Radio and commercial stations as well as

None of this would have been possible without superb backing and support across the entire network of agencies, corporations, archives and individuals who make up the Antarctic community here in Hobart. With generous sponsor support, we made almost all Midwinter Festival events completely free to the public and they responded with enthusiasm.

Extreme Environment Photo Prizes Announced

'Weathered Wall - Mawson's Hut' by Gary Miller was the winner of the \$5000 Salmon Ponds Prize for the image which best captured the essence of an extreme environment at this year's Antarctic Midwinter Festival. The \$2000 Pure Tasmania - Wayne Papps Prize went to Todor Iolovski for his image 'Wilkes - Forever in the Ice'. The prize, open to amateur photographers only, is for the most striking image taken in the Antarctic or Sub-Antarctic region. The Fujifilm People's Choice Award for \$500 went to Tasmanian photographer Grant Dixon for his image 'Patagonian Halo'. Judges

Top: The victorious Hobart International Airport team at the man-haul sled race in St David's Park, courtesy Gordon Bain.
Left & Below: Parade of Snow Petrels and the Ice Cold Facts display, courtesy Sue Halliwell.



Skytraders' Choice

Eliminating alternatives to the Airbus A319 by Norman MacKay



Continuing Norman MacKay's speech, given at the Airlink Forum in November 2007 at Hobart International Airport.

At first glance there was not a great deal of difference between the ACJ (Airbus) and the BBJ (Boeing). The latter was an aircraft which had been created as the result of the fitment of the extended wing off the B737-800 to the shorter fuselage of the B737-700. Jack Welch the Chairman of General Electric had approached his close friend Phil Condit CEO of the Boeing Airplane company explaining that there was no suitable executive aircraft on the market that would enable him to fly directly from his U.S. headquarters to business meetings in Europe. Condit commissioned a project to develop a platform which would address Welch's needs and as a result the Boeing Business Jet was born.

The ACJ was a substantially more technically advanced aeroplane and as such had been designed with leading edge operating and electrical systems including side sticks, fly by wire and a level of redundancy which did not require the APU to be kept running when under-

taking extended ETOPS flights. Features such as this meant that the aircraft met all the design criteria necessary for Public Transport Certification. The aircraft also came with a choice of engine and APU and highly sophisticated maintenance surveillance technology.

The Centralised Maintenance System of the 319/ACJ is based on a Multipurpose Control and Display Unit, which provides system or component diagnosis via a central interface unit. This unit prints to its own on-board printer and has a data link to and from the ground. These features enable the display of diagnostic information along with an Analysis of Failure sequence. These functionalities are only possible with fly by wire technology. This level of sophistication in design technology results in a very high level of reliability, giving rise to the performance which is essential to any aircraft which is to prove successful when operating in a 180 minute ETOPS environment.

As Skytraders got further into its comparative evaluation of the ACJ and BBJ it discovered operational variations, which meant that the Airbus product was substantially better suited to the specific requirements of the Airlink project than

was its Boeing cousin. The ACJ has a substantially longer undercarriage leg than the BBJ hence the engines of the former are some 17 inches higher off the ground. This is a very significant factor when considering the risks and associated consequences of FOD or Foreign Object Damage. The consequence of vacuuming up a substantial piece of ice during taxi or take-off, thereby necessitating an engine change in Antarctica, is one which would have enormous consequences for the program. However the increased wing height also enables the use of engines with larger fans and as a result higher by-pass ratios. This gives rise to improved fuel consumption, less maintenance and lower noise levels.

The belly hold doors of the ACJ open outward rather than inward in the manner of the BBJ. The result of this apparently superficial difference is a substantial increase in the volume of freight, or indeed additional fuel which can be stored within any given area of hold space. The doors themselves are very much larger on the A319/ACJ. This difference vastly increases the range of outsize equipment that can be loaded into the aircraft belly hold, providing substantially enhanced options and flexibility to the project.

continued >>

Likewise the Auxiliary Tankage, which provides the extra range necessary for extended operations, can be installed or removed overnight, thereby delivering the variety of operations which may be essential in securing third party charter work from end-users who want more freight space and less range. Most importantly, the ACJ can land at higher maximum landing weights. This fact enables better payloads to be carried into Antarctica whilst still ensuring that the aircraft has sufficient fuel on board to return to Hobart in the event that weather prevents the aircraft setting down at Wilkins.

The fly by wire technology incorporated across the Airbus product range is an important safety feature when an aircraft is operating in the most challenging of weather conditions on a routine basis. This computer oversight prevents a pilot from inputting a significantly dangerous flight regime when subjected to external pressure. The ACJ is designed to meet the most advanced all-weather performance criteria. In Europe it would be able to fly Category 3 Autoland approaches. The ground base equipment necessary to support such operations is of course not installed in Antarctica, however the cabin based systems fitted in the aircraft are those that accompany this highly sophisticated technology.

Airbus introduced the 319/ACJ in 2004 and it sold four aircraft that year. In comparison Boeing sold ten BBJ units

into a market in which it had already established a significant foothold. In the first nine months of this year Airbus sold 29 ACJ's in comparison with total sales of just 13 Boeing Business Jets. The market's perception of the difference in the two products is clearly addressed by the dramatic change in manufacturer dominance.

Once the decision on aircraft type had been made by Skytraders, it then became necessary to identify an actual airframe to present to the AAD for their evaluation and determination. The aircraft manufacturing industry is one which has production and profit graphs that look like shark's teeth and unfortunately the timing of our requirement was perfectly matched to the apex of one of those teeth. Our close relationship with Airbus's owner the European Aeronautic Defence and Space Company enabled us to negotiate favourable purchase terms for a new, purpose built aircraft. However, we were quoted a minimum delivery lead-time of around five years. Clearly this did not meet the project time lines and we notified Airbus of this fact. The manufacturer then contacted all of the existing owners of suitable aircraft and identified Manufacturer's Serial Number 1999 a two-and-a-half-year-old A319-LR that was being operated on

behalf of Air France in regular services between Paris and Pointe Noire on the Ivory Coast.

Having made the decision to proceed with this aircraft, Skytraders sat down with the AAD and the U.S. based leasing company CIT to conclude an appropriate agreement.

The next major challenge to confront us was to identify a group of insurance underwriters willing to take on the risk of providing cover for a highly specialist Australian carrier looking to be the first to operate a large civilian airliner on and off a blue ice-runway, located 60 kilometres inland from the Antarctic coast. As there was no historic risk profile there was clearly no basis upon which to establish a premium. We despatched a team comprising Skytraders and AAD personnel to London where we gave a detailed presentation targeted to define the risk and to give assurances about the ways in which we sought to mitigate them. With the help of our brokers it was not long before we had a Lloyds underwriter willing to head the placement of this high value policy.

With all of this in place we turned our attention to the way in which we would configure and operate the aircraft. The Air France program featured a 54 economy, 28 business class set-up for the operation of its flights between Paris and Pointe-Noire and it was in this configuration that we took delivery of the aircraft.

AAD had identified the fact that the 28 business class seats suited their requirement and the balance of the main deck should be available for the carriage of sensitive scientific equipment in a series of eight cages fitted to the existing seat tracks. In addition to this space the overhead lockers would be equipped with special passenger stowage bags and the underfloor belly hold available for the carriage of outsize baggage and equipment. We are keen to have the aircraft fit the needs of the broadest possible selection of potential charterers for the purpose of off-season and third party work. Accord-

continued >>





ingly we have styled a number of other configurations which can be offered.

Under an agreement with John Holland Aviation, our Melbourne based Engineering provider, we will provide an overnight reconfiguration service. This service will enable us to reconfigure the internal lay-out of the aircraft offering options of up to 48 all business seats or a lesser number of business in tandem with a higher number of economy positions. Other options will include those of a Medivac Life-port and the standard 28 business and freight cage set-up as utilised in the AAD program.

- We believe that strong markets exist in Australia and throughout the region for a long-range aircraft of this type whether it be for use by Corporations looking to service an executive market in the 48 business class configuration or the entertainment and film industries looking to move a reduced number of people along with fragile equipment using the seats plus cage configuration.

- International scheduled service operators such as Qantas and Air New Zealand are all seeking to avoid the disruptions to service that form part of the Medivac business. Whilst it may appear lucrative for them to block off a large number of business class seats in order to accommodate a stretcher case along with attendants, the revenues available are not considered to warrant the inconvenience to other passengers. As this view gains greater prominence amongst scheduled service carriers the opportunities increase for charter operators.

- The Asian market for foreign Government users is identified as

being strong with a lack of suitable long-range equipment, giving rise to charter demand.

• Closer to home we identify a wide range of other Departmental users of the aircraft both between flights in the Austral summer and throughout the Austral winter when the aircraft is not required by AAD.

- A recent two-day demonstration flight program, conducted in Canberra, provided insight into the needs of agencies such as The Australian Federal Police, who have a wide ranging requirement for personnel deployment in areas like the Solomon Islands.

- The Department of Immigration have a need to transport illegal immigrants and other persons sentenced to deportation by the courts. The security issues associated with activity of this type are such as to often preclude the use of scheduled airlines.

- The Attorney General's Department has a wide ranging requirement covering areas such as the 'Emergency Management Australia' demand for a mass Medivac capability through to the transportation of high sensitivity passengers such as David Hicks or Mandouh Habib.

- Foreign Affairs have needs that extend beyond the capacity of the existing VIP fleet. The Jog Jakarta tragedy earlier this year identified the fact that it isn't appropriate to have Australian media forced to use third world air carriers when accompanying Ministers on trips through developing countries.

- The Department of Defence has an

ongoing need for aircraft with which to support the ever-widening area of Australian interest overseas and we look forward to seeing how this requirement may vary in the event we have a change of Government later this month.

- When the Prime Minister travels overseas he is accompanied by a large press entourage. The media generally wants to fly in the PM's VIP aircraft as it allows them to both meet the same schedule and also to be in the heart of the action. Demand for seats exceeds supply and again the need for a support aircraft is often evident.

Some of the people here today will be looking to identify Skytraders position in regard to Antarctic tourism with a view to understanding whether the Airlink may provide the platform from which to launch a new and exciting export industry which could provide a very substantial boost to the State's income in the area. The answer to the question is that we await a policy determination after the 24th of November. As a company we will certainly be looking at the feasibility of overfly operations which will not land in Antarctica and it will be a question of how we guarantee on time departures whilst not impinging on our principal commitment which is of course to the AAD. Whether consideration may then be given to flights that actually offer an 'On the Ice' Antarctic experience remains to be seen.

Whilst the Engineering requirement associated with the support of an aircraft with the size and complexity of the Airbus will necessitate that it spends a lot of its time based in Melbourne you can rest assured that Skytraders will be doing everything possible to maximise its exposure and benefit to Tasmania and the people who have played such an important role in bringing this incredible project to fruition.

All images courtesy Skytraders Pty Ltd

South Solo

By Rob Knight

On a blisteringly hot Hobart summer's day, some time after leaving school at the age of 18, I was doing some gardening in Sandy Bay at a family friend's home overlooking the Derwent River. As we took a break we watched a cruise ship sail up the river and I commented on how great it would be to travel the world working on ships. My friend's business was often involved with the ships arriving in Hobart and they were occasionally asked to help find staff. She promised me that if the opportunity were to arise that she would think of me.



Several months later, with my focus now on the fast approaching start of the university semester I was sitting at home on a Sunday night when my friend called and asked me if I was interested in joining a Russian icebreaker as a waiter on its final voyage of the season to Antarctica. Without considering the fact that I had a job in Hobart, was enrolled in university and had no hospitality experience I instinctively answered "yes".

After just one day to prepare for my trip south to the Ross Sea I boarded the powerful icebreaker Kapitan Khlebnikov and entered a rather chaotic and daunting scene as the Russian crew hurried about to turn the ship around in a single day. After a week at sea I got my first glimpse of Antarctica and, like most people, I was instantly captivated.

Since my first trip South with Quark Expeditions in 2004 I have been lucky enough to spend a season in the Arctic exploring Greenland and the Russian and Canadian Arctic. I have returned to Antarctica about thirty times exploring the Weddell, Ross Bellingshausen &

Amundsen Seas, the Antarctic Peninsula, South Georgia Island, The Falkland Islands, South Sandwich Islands and the Sub-Antarctic islands of Australia and New Zealand. I have progressed through a number of positions from waiter and restaurant manager on the Kapitan Khlebnikov to zodiac driver and most recently assistant expedition leader on the Ocean Nova.

At anchor one evening in Port Lockroy on the Antarctic Peninsula, I was sitting out on deck soaking up the tranquility of Antarctica, awed by the sight of the mountains in front of me as they were illuminated by a sunset which seemed to last for hours and which at some point must have become a sunrise. Being on a ship made me feel imprisoned, I was merely a spectator of the majesty before me and wanted to be more connected with it. It was at that moment that I decided I wanted to explore the Polar Regions more intimately.

The North Pole

Last year I skied 130km across the frozen Arctic Ocean with polar veteran Eric Philips to the Geographic North Pole. Originally I was going to be guided to the North Pole with a Russian company. I rang Eric, who also lives in Hobart, before my departure from Australia to ask him for advice and some tips for my upcoming adventure. In return for his advice I carried a sled for him from Hobart to Norway as he was also skiing to the North Pole that season. I did not realise at the time how valuable this little favour was going to be later that month.

The night before my flight from Longyearbyen to our starting point, a blizzard tore across the Arctic Ocean and destroyed the ice runway on which we had hoped to land. We had to wait for the weather to improve so that the runway could be rebuilt. Hours turned into days and eventually, much to my disappointment, my expedition was cancelled.

I met Eric again in Norway and told him of my misfortune and he kindly offered to let me join his expedition. The evening before our departure disaster struck once again as I slipped on the icy doorstep of our accommodation and sprained my

wrist (for the sixth time). Thankfully Eric was still willing to take me even though we could not put the wrist in a cast, as my glove would not fit over the top. After a painful nine days of skiing, the pain compounded by the fact that I had never been on skis before, we reached the North Pole and I was hooked on polar adventuring.

Southsolo

In November this year I will ski solo and unsupported (no resupplies) for 60 days from Hercules Inlet on the coast of Antarctica to the South Pole, a distance of about 1200 km. Eric Philips has joined the Southsolo team as technical consultant and is assisting with logistics and training.

Southsolo will use state-of-the-art communications technology to stay in touch with the world. The expedition website www.southsolo.com will be updated daily with news from the ice, giving the public a direct link to my progress.

Southsolo is also aiming to raise funds and awareness for the most common life-threatening recessive genetic disorder affecting Australian children today, Cystic Fibrosis.

Upon reaching the South Pole in mid January I will be the first Australian to have skied alone to the South Pole and at 23, the youngest person in history ever to achieve the feat.





SCAR/IASC IPY OPEN SCIENCE CONFERENCE

by Irina Gan

The SCAR/IASC IPY open science conference (in association with the XXX SCAR meeting) held in St Petersburg, Russia, on 8 - 11 July 2008 marked fifty years since the first meetings of SCAR, which were held first in The Hague and later in Moscow in 1958. It was organized by the Scientific Committee on Antarctic Research (SCAR) and the International Arctic Science Committee (IASC) and co-sponsored by the International Council for Science (ICSU) and the World Meteorological Organisation (WMO), which are also co-sponsors of the IPY. The conference was novel in that it included delegates from all over the world who assembled to exchange new research findings and emerging ideas on scientific topics related to both the Arctic and Antarctic Polar Regions. The logo chosen for the conference, a white polar bear and a penguin which was widely used by Soviet Polar Aviation in the 1950s, symbolizes the union of the Arctic and the Antarctic.

The local host was the Arctic and Antarctic Research Institute (AARI), an institution with almost ninety years' history of polar research and a leading world centre of polar science. Many Russian institutions including Roshydromet (Russian Hydrometeorology and Environment Service) and the Russian Academy of Sciences were involved in the preparation of the Conference. The Russian Organizing Committee worked under the leadership of Vladimir Kotlyakov, Director of the Institute of Geography, and Alexandr Frolov, Deputy Director of Roshydromet, responsible for the Russian Antarctic Program.

The conferences venues were the Pribaltiyskaya Hotel and the AARI, which are located on St Petersburg's Vasilevskiy Island, a 10-minute bus ride apart. A shuttle bus service linked the two venues and provided an opportunity to meet Russian polar scientists at the AARI. At the Opening Ceremony, the SCAR/IASC Presidents and local organizers welcomed the delegates and awarded the 2008 SCAR medals to Vladimir Kotlyakov (Russia), Claude Lorius (France) and Angelika Brandt (Germany). The lecture program began with the prestigious Weyprecht Lecture given by Profes-

sor Robin Bell of Lamont-Doherty Earth Observatory in New York, who explored the enigma of the Gamburtsev Mountains, a massive mountain range buried beneath the ice sheet of East Antarctica.

Other keynote speakers included Australian Ian Allison from AAD and ACE CRC as well as leading scientists from Canada, Denmark, France, Germany, Greenland, Russia and the USA.

The next three days, consisting of 29 sessions with up to 11 running in parallel on any one day, were informative and kept the delegates extremely busy: oral and poster presentations were delivered by 1400 delegates from about fifty countries involved in the International Polar Year (IPY). Australia was well represented with about thirty-five participants, including the Chief Scientist of the AAD Prof Michael Stoddart and Director of IASOS Prof Andrew McMinn. Being merely a final year PhD student, I felt privileged to be a part of the Tasmanian contingent and one of four Australians invited to chair the combined session entitled "Polar Bridges" and "People and Resources at the Poles", which gave me the opportunity to widen contacts and meet with key people in the Russian Antarctic community. In fact, I was able to meet with and talk to Artur Chilingarov, member of the Russian Duma (Parliament) and special representative of the President of Russia for the IPY, about the TPN proposal for the Russian Antarctic Expedition to use Hobart as a base for their Antarctic operations and hand him

the TPN member submissions.

Meetings were held with Valery Lukin, Director of the Russian Antarctic Expedition and Vyacheslav Martyanov, his Deputy, who also received the TPN proposals. Previously, in Moscow, I had visited the Deputy Director of Roshydromet, Alexandr Frolov who is responsible for the Russian Antarctic Program at Roshydromet headquarters. He indicated that additional contacts through government channels i.e. the Russian Ministry of Foreign Affairs would increase the chances of yielding a positive outcome. I am convinced that the TPN should continue the dialogue by further developing contacts and providing updated information to the RAE. Perhaps the federal, state and local government entities that are members of the TPN could play a pivotal role in further advancing the TPN proposal for the Russian Antarctic Expedition to utilize Hobart's undoubted expertise in providing support for their Antarctic operations.

Overall, the conference provided an environment for sharing scientific interests, developing contacts, forging friendships and exploring mutually beneficial business relationships.

Irina conveying the TPN invitation to use Hobart as the Russian base to Artur Chilingarov, special representative of the President of Russia for the IPY [R], looked on by Academician Vladimir Kotlyakov, Russian SCAR delegate, Director of the Institute of Geography of the Russian Academy of Sciences and Honorary President of the Russian Geographical Society [centre] 8 July 2008.





Bruce Mapstone

...the fact that the first significant effects of ocean acidification are likely to be seen in the cold polar oceans...

Most of the discussion around climate change and humanity's role in it arises from the enhanced greenhouse effect that leads to global warming. The greenhouse effect essentially means that gases in the earth's atmosphere, such as carbon dioxide and methane, retain heat close to the earth and keep the earth warmer than it would be otherwise. It is an essential feature enabling life on earth to survive as we know it.

Recent global warming is in part attributed to human activities because we have been increasingly emitting carbon dioxide, methane and other gases into the atmosphere as we have developed an industrialised society, largely supported by burning fossil fuels. Hence we have been loading the atmosphere with extra greenhouse gases, so 'enhancing' the greenhouse effect and accelerating warming of the atmosphere.

Adding carbon dioxide to the atmosphere has another effect on the earth that is mostly unrelated to the warming effect of carbon dioxide in the atmosphere. The atmosphere is constantly exchanging carbon dioxide with the earth's oceans, through physical, chemical and biological processes. This exchange has generally been in balance over short periods (decades to centuries) though has gone up and down slowly over past millennia. Human emissions of carbon dioxide to the atmosphere tend to 'load up' the atmosphere with the gas relative to its concentration in the ocean, leading to an imbalance and, ultimately, forcing more carbon dioxide into the ocean over unusually short periods – especially the last 200 years or so. Carbon dioxide in the ocean plays a key role in the ocean chemistry and tends to form weak carbonic acid. The more carbon dioxide in the ocean, the stronger the acid – hence the recent rise in references to 'Ocean Acidification'. Acidification of the earth's oceans has been gaining increasing attention over the last five years or so, with attendant con-

cerns about the likely consequences for marine species, ecosystems and resources important to coastal communities.

One of the main effects associated with ocean acidification is increasing difficulty for marine organisms to form calcium carbonate shells or skeletons. Not surprisingly, most attention has been focused on the tropics, with concerns for our iconic Great Barrier Reef and for island communities across the Indo-Pacific region that live on carbonate sand islands protected by carbonate coral reefs that might be weakened and, ultimately, eroded as ocean acidification progresses.

Less well publicised, however, is the fact that the first significant effects of ocean acidification are likely to be seen in the cold polar oceans, especially the Southern Ocean. The ocean uptake of carbon dioxide is greater in colder water, and so is at its maximum in the chilly circumpolar waters of the Southern Ocean. Current modelling of these processes indicates that the surface layers of the Southern Ocean (the top few hundred metres) will be 'the first cab off the acidification rank' and become hostile to the formation of shells by marine organisms before any other part of the earth's oceans.

Researchers at the Antarctic Climate and Ecosystems CRC have now demonstrated significant reductions in shell mass and thickness of several Southern Ocean marine plants and animals that appear consistent with the projected effects of recent acidification of the ocean. It is still early days in this research, but we now have clear empirical evidence that the concern about ocean acidification and its likely effects on marine organisms is well founded. We now need to resolve how best to unravel how such effects might spread throughout the ocean and what will be the higher ecosystem consequences of them, for both marine systems and human communities that depend on them.

Ocean acidification is now an inevi-

table consequence of our past carbon dioxide emitting activities and will be an ever-increasing problem whilst ever we continue to emit large amounts of the gas into the atmosphere. It will take many decades for the carbon dioxide load now in the atmosphere to come to balance with carbon dioxide capacity of the ocean. The consequences of this inevitable process for marine ecosystems and, probably, some of the biological resources so important to us, are still not certain but early indications and our understanding of fundamental biological processes indicates that we are on the cusp of seeing significant effects. How we cope with those effects will depend in part on how well we understand them and can anticipate what we are in for. These effects will become clearest first in the cold waters of the Southern Ocean. It is important that we continue to research them there to get early warning of what we will have to respond to later in the warmer waters all around Australia.

On a completely different note, I take this opportunity to bid farewell to the readers of Ice Breaker and the Antarctica community in Tasmania. I have accepted a job with the CSIRO as Director of their joint venture research organisation with the Bureau of Meteorology, the Centre for Australian Weather and Climate Research. Dr Tony Press, current Director of the AAD, will be replacing me as CEO of the ACE CRC from early next year. I can think of no one better placed to lead the CRC into its next incarnation and carry forward the collaborative Antarctic and Southern Ocean research done by the CRC and its constituent partners. I thank you all for your support of the centre and me over the past 5 years and wish you all well for an exciting future.

Bruce Mapstone

CEO, ACE CRC

Douglas Mawson Stamps (Part 2)

Gordon Bain

Ships and Anniversaries

Since Part 1 of this series (Icebreaker, No 43) the 2008 Midwinter Festival has come and gone. During the Festival we saw the National Archives' exhibition Mapping Antarctica on the 75th anniversary of the Australian Antarctic Territory which came about from the exploration and mapping done by Mawson's 1911-14 and 1929-31 expeditions. The State Cinema, as part of the Longest Night Film Festival, had Paul Cullen's film on the history of aviation in Antarctica opening

with the Vickers REP Monoplane that Mawson took on his 1911-14 expedition and included the DeHavilland Gipsy Moth used during BANZARE 1929-1931.

Ships

In three successive new stamp issues – 1979, 1980 and 1981 - Australia Post covered a wide range of ships associated with Antarctic exploration, not only those involving Australia or Australian Expeditions. There were 16 stamps in total in these issues but there were only meant to be 15. The 1980 release included a

15¢ stamp labelled SY Nimrod (the BAE 1907-1909 ship), but was actually the SY Morning (the relief ship that came to McMurdo Sound at the end of the first year of Scott's 1901-1904 expedition). The error was corrected in 1981 with the issue of a replacement 15¢ stamp correctly depicting and naming the Nimrod.

Incidentally, and nothing to do with Mawson, the 30¢ stamp of the SS Fram (the Norwegian Roald Amundsen's ship) is shown flying the Icelandic flag – but this error was not corrected.



L: The 1979 issue, released in Australia on 29 August 1979 included the SY Discovery used during the 1929-1931 BANZARE.

R: Ships Series 2 released in Australia on 21 May 1980 included the SY Aurora used by Mawson on the AAE 1911 – 1914.



L: 1982 marked a special year in our journey through Mawson's life in Stamps. Australia Post's issue for the year was the commemoration of the centenary of Mawson's birth, and the issue was timed for release on the 5th May, the 100th anniversary of his birth. The official Australian release was at Adelaide regarded as Mawson's home.

R: Ships' series 3 released on 9 Sept 1981 included Mawson's 'first' Antarctic ship, the SY Nimrod the vessel of Ernest Shackleton's British Antarctic Expedition 1907-1909.



L: The stamps typify his on-ground explorations with BAE and AAE, and his mapping of the coastline leading to the proclamation of the Australian Antarctic Territory. Mawson's birthplace Shipley is a small town in the Aire Valley just N of Bradford and S of Bingley.

R: 1984 commemorated the 75th Anniversary of Mawson's attainment of the South Magnetic Pole during Shackleton's BAE expedition. Released on 16 January, exactly 75 years after, the stamps featured the instruments used to locate the pole.



Polar News

New Shipping

Argentina

Argentina has invited tenders for the provision of an ice breaker for the coming 2008/09 Antarctic season, since flag carrier *Almirante Irizar* remains out of action following the severe fire which crippled the vessel last year. However, the operation is limited to Argentine bidders, and the Argentine National Antarctic Director Mariano Mermolli has proposed an interim plan to purchase the "Puerto Deseado". This ship is smaller than the *Irizar*, and is currently under instructions from the Argentine Foreign Affairs ministry, undertaking the necessary seabed surveys for Argentina's presentation before the United Nations Law of the Sea Commission by May 2009. Antarctic surveying is scheduled for this coming 2008/09 season.

Argentina desperately needs an ice-breaking vessel for Antarctic exploration because the Antarctic Treaty demands full members to undertake scientific research, and the crippling of the *Irizar* has meant Argentina's research programs have been severely reduced. In addition, after decades of diplomatic efforts, Argentina's capital, Buenos Aires, was finally chosen as the seat for the Permanent Secretariat of the Antarctic Treaty.

Korea

Korea's new icebreaker, called 'Arion', is also under construction, see below.



Australia

This year, the AAD executive has chartered a cargo ship to transport large cargo items to Antarctica, including some for the ongoing development of Wilkins and mechanical plant at all stations. After a competitive tender process, the AAD has entered into a contract with the Far

Eastern Shipping Company (FESCO) for a large ice capable cargo ship called *Amderma*. It will conduct the Casey and Mawson resupply (V4) and visit Davis this season as per the published schedule.

The *Amderma* is bigger than the previously chartered *Vasily Golovnin* and was used by the British Antarctic Survey last summer to deliver building materials to Halley station. It is intended that Captain Boldakov, who was the Master of the *Vasily Golovnin* last time AAD used that ship, will be the Master, and the ship will be capable of carrying 25 expeditioners.

The Masters for *Aurora Australis* for the coming season are:

V1 Trials: Ian Moodie

V1: Murray Doyle

V2: Ian Moodie

V3: Murray Doyle

V5: Scott Laughlin.

For further information about Scott Laughlin's plans for Sub-Antarctic research cruises, see www.antarcticspirit.com

Antarctic Division News

Australian Antarctic Station Leaders, 2008-2009

CASEY – Graham Cook.

Graham has previously been the station leader at Mawson in 2005 and Davis in 2007. Prior to that he worked for the Federal Hotels Group as the Operations Manager at the Strahan Village and also worked for a number of years in the Northern Territory in management roles within remote aboriginal communities.

DAVIS - Bill De Bruyn

Bill is employed by Victoria Police as the Superintendent responsible for the Strategic Support Division. Prior to that he was the Superintendent in charge of the Gippsland Division; Inspector in charge of Maribyrnong district; Inspector in charge of the Bass Coast region; and has also worked a range of other policing duties with Victoria police.

MAWSON – Peter Hackworth

Peter is employed by the Phylloxera and Grape Industry Board of South Australia where he is the Chief Executive Officer to the Board. Prior to that he was employed as the Economic Development

Officer for the Upper Murray Development Board; held various positions undertaking Ecotourism Development and Training projects, ran and operated his own small business and has worked in various capacities with disadvantaged youth.

Loss of Name

The Australian National Antarctic Research Expeditions (ANARE) began 61 years ago when Phillip Law first sailed to Antarctica and since 1947 Australian expeditioners have voyaged south each summer under the banner of ANARE.

However, the Australian Antarctic Division has effectively decommissioned the name recently, and Dr Tony Press, head of the Antarctic Division, says that the ANARE title no longer reflects the scale and scope of the work undertaken by the Australian Antarctic Division. "People may be on the ice for programs as briefly as a week or as long as a year. They may work from research ships and never set foot on the ice; indeed, they may contribute to a new understanding of the continent without ever getting closer to it than the Division's laboratories in Hobart. The idea that you run programs like a military expedition or even a geographical survey is long past," says Press.

Those objecting to the change include Phillip Law, who states, "What's in a name? Honourable history and ongoing endeavour." Tim Bowden, author of the ANARE history *The Silence Calling*, agrees, saying he is saddened by the "perceived need to change the name ANARE, when you think of all the history that name carries within it". Bill Burch and fellow members of the old expeditioners' ANARE Club are campaigning to keep the name alive. They've raised money to make new ANARE pennants to fly over the Antarctic bases, and they are making representations in Canberra.

Heritage place

AAD buildings at Kingston have won a provisional place on the Tasmania Heritage Register as the buildings' high-finish metal-clad detailing won a Royal Australian Institute of architecture merit award for Dowell Aluminium.

Marine Professional's Meeting

An Initiative of the Australian Hydrographic Society

Marine professionals tend to be members of various professional affiliations but given our geographical location here in Tasmania, we tend to be left off the map when it comes to meetings and seminars. As an initiative of the Australian Hydrographic Society, an open meeting was held for all marine professionals in Tasmania with an aim to discuss the opportunities of forming an active marine community locally, no matter what their affiliation. This meeting was held on the 14th August and was kindly hosted by CSIRO.

After initial welcome and introductions by Stefan Stimson, Simon Allen of CSIRO presented 'The Australian Integrated Marine Observing System & developments in the science of marine observation' providing a very informative talk on this national project that sparked much interest and many subsequent questions. This presentation was followed by Greg Timms, also of CSIRO, who spoke on 'The TasMAN Project: Collecting real-time data from the Derwent, Huon and D'Entrecasteaux Channel'. Again this was very interesting and opened the audience's eyes to a project that CSIRO are running on their and our doorstep. This involved an overview of the project and problems that they have encountered as well as plans for the future.

Nearly 40 people attended the meeting from all over Tasmania and from all backgrounds. After the presentations and a coffee break, a smaller group of 12 stayed behind to discuss a structure and way forward for marine professionals in Tasmania. All those that attended agreed that there was a need for this sort of meeting to take place and that the benefits to our community were clear. It was agreed that meetings should be held quarterly and that to ensure the interest and professionalism of them, that presentations should remain non-commercial.

Of those that attended the meeting, only a small number were affiliated to any professional organisation and, as there were several represented, the total number from any one organisation was small. Although the importance of the various affiliating bodies is clearly evident, the current member numbers in Tasmania

make it impossible for any one organisation to host a meeting locally independently of the others. It was therefore decided that future meetings should be conducted on a similar 'open' basis and under no specific organisations banner ensuring that all interested parties are included. To support this proposal, Simon Allen kindly offered the use of the CSIRO Auditorium for the next 3 meetings - after this time, the structure and organisation will be reviewed.

The next meeting is planned for the middle of November and a program is currently being put together to include another number of interesting and informative presentations. It is hoped and believed that the various organisations that supported the original initiative of the Australian Hydrographic Society will continue to do so on behalf of their members and promote it accordingly.

For more information on this meeting or any future meeting, please email stefan@metoceanservices.com.

Stefan Stimson

Aurora Australis is being hired by the Japanese Government to support its activities in Antarctic territory. The ship will be used for the annual logistic resupply to Syowa Station and in transit, will conduct some marine research on behalf of the Japanese Institute of Polar Research. The Australian government has been assured that no whaling-related research will be carried out, and the institute involved is not related to the Institute for Cetacean Research which conducts whaling operations.



The Tasmanian Ports Corporation, through the Port of Hobart, plays a vital role in fostering the endeavours of the world's Southern Ocean and Antarctic operators.

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Tasmania's
TRADE LINK with the
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School Alert!

Ice Breaker magazine is now available to every secondary school and college in Tasmania, thanks to the generosity of a private sponsor.

The Editor hopes that schools will take advantage of this link with Antarctic science, research, business, arts and tourism activities, and contribute to this segment. Here are some useful introductory links to Antarctic facilities.

Tasmanian Museum and Art Gallery

www.tmag.tas.gov.au

Follow the links to Learning and Discovery – includes 'Islands to Ice: The Great Southern Ocean and Antarctica' – Education resources for teachers and students, and examples of school programs. For visits and group bookings, contact us via tmag.bookings@tmag.tas.gov.au or 6211 4189.

CSIROSEC

www.csiro.au/places/EducationTas.html

For Science Education Centre activities and Double Helix Club.

Marine Discovery Centre

www.woodbridge.tased.edu.au/mdc

For hands-on marine science.

Imaginarium Science Centre

www.devonport.tas.gov.au

For a wide range of science activities

University of Tasmania

www.utas.edu.au

For Institute of Antarctic and Southern Ocean Studies and other Antarctic courses.

Australian Maritime College

www.amc.edu.au

For careers in a range of maritime courses

Australian Antarctic Division:

aad.tas.gov.au & classroom.antarctica.gov.au

For scientific projects

Tasmanian Polar Network

www.tpn.aq

For all the businesses providing goods and services for polar projects.



Photo: Klaus Arne Pedersen

Recollections of Mawson Station

by Alan Grant, Station Leader 1993, as described to students at Sandringham East Primary School.

Mawson Station

The station was established in 1954 and is now the oldest continuously operating station in Antarctica. It is located on a horseshoe shaped rock at the edge of the continental ice sheet and is made up of an accumulation of older smaller domestic scale buildings that date from its origins (and in some cases have been brought from earlier stations) and new larger & more sophisticated factory sized buildings. The varying size and dispersed nature of the buildings now gives the impression of a small alpine village nestled in the hillside dominated by much larger primary coloured buildings on the rocky hilltops. Mawson as a small remote village has evolved from the earlier intrepid discovery & scientific era into a phase of closer settlement which has included the ongoing construction of the ever more sophisticated buildings.

The scenery here is dramatic. Mawson is situated on a rocky outcrop at the edge of the continent & has a fantastic deep horseshoe shaped harbour. Many rocky

islands exist just off the coast abounding in penguins, seals & birds. The ice plateau rises immediately behind Mawson from the elevation of over 300m to 1200m out of which the Framnes Mountains rise to about 1500m. These mountains are the only ones nearby & we have three field huts out there, which we use for field trailing & R&R. Once you leave the mountains to the south, there is nothing to see except for the rising plateau & the odd exposed mountain tip poking through the ice plateau. These are called Nunataks. Way out beyond Mawson to the south east are the Prince Charles Mountains covering an area larger than Tasmania & also the largest glacier in the world which is the Lambert Glacier draining 2/3 of Antarctica & bigger than Victoria. All of the intrepid stuff has been done down here & we are now in the process of closer settlement & scientific research. This is to find out the degree of influence of Antarctica & the Southern Ocean on the earth's weather system & the effects of climate change on Antarctica to mention a few as well as the unique biology. To support this scientific endeavour, they have invested much money and effort on new buildings & equipment in recent years.

Polar Publications



BOOKS

Sub-Antarctic Wilderness: Macquarie Island by Aleks Terauds and Fiona Stewart. Published by Jacana Books. Price: \$59.95.

- Covers the history of Macquarie Island from 1810 to Mawson's 1911-14 expedition, with excellent photos by Alex and artwork by Fiona. This book was launched by Sir Guy Green, Tasmania's Antarctic Ambassador, at Fullers Bookshop in Hobart in June 2008, during the Antarctic Midwinter Festival.

Mawson: Life and Death in Antarctica by Tim Jarvis. Published by Miegunyah Press. Price: \$39.95.

- Based on the film of the same name shown on ABC TV earlier this year, this book covers Tim Jarvis' re-enactment of Mawson's trek with Mertz – using similar equipment and rations – after the death of Ninnis.

Mawson's Huts: the Birthplace of Australia's Antarctic Heritage by Mawson's Huts Foundation. Published by Allen & Unwin. Price: \$95.00.

- Contains 50 of Frank Hurley's original glass plate photographs, plus recent colour photos of the huts and the preserved artefacts, as well as information about conservation measures being undertaken. The centenary of Mawson's expedition is in 2011.

The Complete Guide to Antarctic Wildlife by Hadoram Shirihai. Published by A&C Black Price \$99.00.

- A beautiful and informative book about the birds and marine mammals of the Antarctic, Southern Ocean and Sub-Antarctic regions.

Quest for Antarctica – A Journey of Wonder And Discovery by John Barell. Published by iUniverse Inc. Price US\$16.95

- Describes the author's Antarctic expeditions, based on knowledge from Rear Admiral Richard E. Byrd, including becoming a teacher, and learning how all of the survival lessons

of Antarctica apply to striving for our own goals and being successful.

Ice, Mud and Blood: Lessons from Climate's Past by Chris Turney. Published by Macmillan. Price: \$49.95

- Describes warming, cooling and major climatic events in the earth's geological past.

Arctic Spectacles: The Frozen North in Visual Culture, 1818-1875 by Russell A. Potter. Published by McGill-Queen's University Press. Price: US\$35.

- Describes the public reaction to representations of the Arctic in fine art, engravings, photographs and other visual media, which derived from major Arctic expeditions of the 19th century.

The Lost Men by Kelly Tyler-Lewis. Published by Simon & Shuster. Price: \$24.95.

- Recounts the story of ten of Shackleton's men stranded in Antarctica during their 1914 expedition.

Albatrosses, Petrels & Shearwaters of the World by Paul Schofield & Derek Onley. Published by A&C Publishers. Price \$55.00

- A comprehensive guide to pelagic birds, featuring 46 colour plates.

FILMS

As seen at this year's Longest Night Film Festival

Deep Sky, Crystal Ocean

A compilation of old Commonwealth Film Unit material, Movietone News, and new footage from CSIRO, AAD and ACE CRC at the University of Tasmania, following the story of Australian scientists from the 1957 International Geophysical Year to the current International Polar Year, as well as an Antarctic documentary from Natural History New Zealand.

Soaring the Ice

Follows the history of Aviation in Antarctica, beginning from the first flight made by an Australian in a World War 1

bi-plane to the Airbus landing a Casey Station last year. Also included is the last interview of Frank Hurley and one with Dr Phillip Law.

THEATRE

Moj of the Antarctic: an African Odyssey

The British Council describes the play in the following way: "Moj of the Antarctic is inspired by the wonderful true life story of Ellen Craft, a 19th century African-American slave woman who successfully escaped to freedom by disguising herself as a white man. Moj of the Antarctic extends Ellen's amazing biography into a flight of theatrical fantasy where upon arrival in Victorian London, she finds work as a sailor on a whaling ship bound for the Southern Seas. Life on the ship is tough in more ways than one: the white sailor's idea of fun is playing black face minstrels. Finally the ship arrives in Antarctic waters, ripe for gruesome whaling, and Moj becomes the first Black woman to set foot on Antarctica. Performed in Mauritius and advertised as a play dealing with the increasingly pressing issue of climate change, Moj of the Antarctic is far more than that. Part love story, social critique, environmental manifesto and history lesson with a dash of slapstick comedy, musical and visual art chucked in for good measure, this amazing journey begins with a hymn to Gondwana, the mega-continent that once included Africa and Antarctica, and the kinship between the "sister continents". All through the play, beautiful footage of Mojisola Adebayo's own journey to the world's southernmost continent (she is the only African woman to have performed in Antarctica) was projected as a backdrop to what the British Council describes as an exploration of "the ancient connection between Africa and Antarctica and the modern impact of climate change on these sister continents. This innovative total theatre piece incorporates video, text, dance, music, storytelling, song and stunning original photography shot on location in Antarctica".



Polar Calendar

5	September	2008	Tasmanian Polar Network AGM and Meeting 11.00am-1.00pm. HCC meeting room. Hobart, Tasmania.
17	September	2008	Marine Discovery Centre Open Day. 9.00am – noon. Jetty Road, Woodbridge, Tasmania.
22-26	September	2008	ICES Annual Science Meeting. Halifax, Nova Scotia, Canada. Contact: Garry satenson@dfo-mpo.gc.ca
24-26	September	2008	15th International Symposium on Polar Sciences. Incheon, Korea. Contact http://symposium.kopri.re.kr
26	September	2008	'Climate Futures in Tasmania' talk by Nathan Bindoff, CSIRO Auditorium, Hobart, Tasmania.
26 3	September October	2008– 2008	NZ Antarctic Festival. Christchurch, NZ Contact www.ccc.gov.nz
5-9	October	2008	Ancient Polar Ecosystems and Environments: Proxies for Understanding Climate Change and Global Warming. Houston Texas, USA Contact: tfiorillo@natureandscience.org
6-9	October	2008	Symposium on the Ocean in a High CO ₂ World. Monaco. Contact www.highco2world-il.org
12-18	October	2008	Earth Science Week.
25-4	October	2008	Science festival Genova, Italy.
27 7	October November	2008– 2008	CCAMLR meetings, Hobart, Tasmania.
10-13	November	2008	EPICA Open Science Conference. Venice, Italy/ Contact www.unive.it/epica2008
10-15	November	2008	World Conference on Marine Biodiversity, Valencia, Spain.
28	November	2008	TPN meeting (to be confirmed).
3-5	December	2008	XXXI Symposium on Polar Biology. Tokyo, Japan.
6-9	February	2009	Wooden Boat Festival. Hobart, Tasmania.
15-20	March	2009	Gordon Research Conference in Polar Marine Science. Tuscany, Italy.

Polar News

Ice Robots

Scientists at British Antarctic Survey (BAS) in collaboration with the Technical University of Braunschweig (TUBS), Germany have completed the first ever series of flights by autonomous unmanned aerial vehicles (UAVs) in Antarctica. These flights by Unpiloted UAVs have opened up a major new technique for gathering scientific data. Apart from take-off and landing, when the UAVs are controlled by radio, they are completely autonomous, and fly according to a pre-programmed flight plan lasting 40 minutes, covering around 45km and taking 100 measurements a second.

The UAVs successfully completed 20 flights including four over the Weddell Sea, and they were fitted with instruments to record the exchange of heat between the lower atmosphere and sea ice. Using UAVs to gather this kind of data allows scientists to study areas that are too costly to reach using ships or conventional aircraft and it is expected that future atmospheric research will be robotic.

Robotic observatory in Antarctica shuts down

A robotic observatory designed to test the astronomical observing conditions at a remote Antarctic plateau has lost power

after 204 days of operation, although it was designed to run unattended until a re-supply mission brought it more fuel and new instruments in 2009.

The Chinese PLATeau Observatory (PLATO) is sited on Dome A, 4100 metres above sea level, and includes a range of telescopes and meteorological instruments designed to test the sky conditions. The site was chosen because it is very dry, which is good for astronomy because atmospheric moisture absorbs certain wavelengths of light and there is less distortion-inducing atmosphere between it and its celestial targets.



Shipping & Air Calendar

Shipping

3-12	October	2008	Aurora Australis	VT	Marine Science sea trials
13	October	2008	Aurora Australis	V1	Depart for Casey Station
20	October	2008	L'Astrolabe	T1	Departs Hobart
21-25	October	2008	Aurora Australis	V1	Casey Station
23-24	October	2008	L'Astrolabe	T1	Macquarie Island
25-26	October	2008	Aurora Australis	V1	Marine Science
1-7	November	2008	Aurora Australis	V1	Davis Station
2	November	2008	L'Astrolabe	T1	Dumont D'Urville
9	November	2008	Spirit of Enderby	T2	Departs Invercargill, NZ
13	November	2008	L'Astrolabe	T1	Arrives Hobart
15-16	November	2008	Spirit of Enderby	T2	Macquarie Island
18-20	November	2008	Aurora Australis	V2	Arrive Hobart, depart for Marine Science
26 11	November December	2008- 2008	Aurora Australis	V2	Marine Science
27	November	2008	Spirit of Enderby	T2	Arrives Dunedin, NZ, departs for Macquarie Island
30 1	November December	2008- 2008	Spirit of Enderby	T3	Macquarie Island
5	December	2008	L'Astrolabe		Departs Hobart
9	December	2008	Spirit of Enderby	T3	Bluff, NZ.
12-17	December	2008	L'Astrolabe	T5	Commonwealth Bay, Dumont D'Urville

Flights

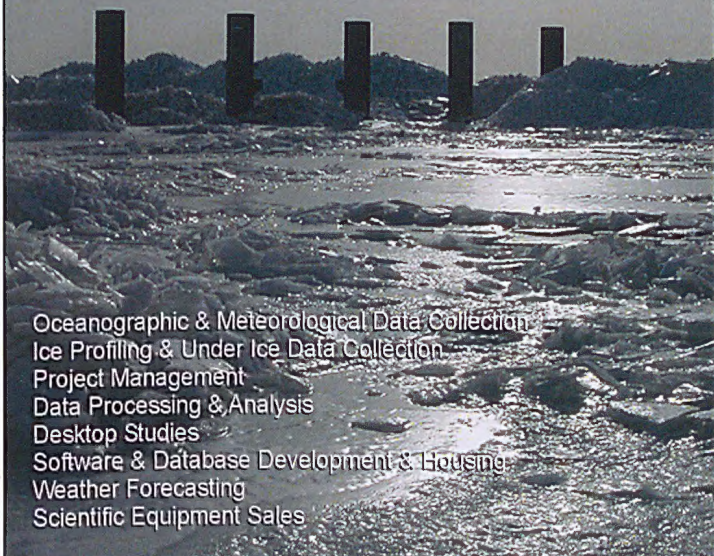
15	October	2008	C-212	FC01,02	Casey ferry flights (to be confirmed)
3	November	2008	S76A/S76A+	F76-1	Davis to Mawson
4	November	2008	S76A/S76A+	F76-2	Mawson to Davis
11	November	2008	Airbus A319	FA01A,01B	Hobart to Wilkins Aerodrome and return
18	November	2008	Airbus A319	FA02A,02B	Hobart to Wilkins Aerodrome and return
21	November	2008	S76A/S76A+	F76-3,4	Davis to Mawson and return
25	November	2008	Airbus A319	FA03A,03B	Hobart to Wilkins Aerodrome and return
28	November	2008	S76A/S76A+	F75-5,6	Davis to Mawson and return
2	December	2008	Airbus A319	FA04A,04B	Hobart to Wilkins Aerodrome and return
3	December	2008	S76A/S76A+	F76-7,8	Davis to Mawson and return
6	December	2008	S76A/S76A+	F76-9,10	Davis to Mawson and return
9	December	2008	Airbus A319	FA05A,05B	Hobart to Wilkins Aerodrome and return
12	December	2008	C-212	FCA4	Casey to Davis.



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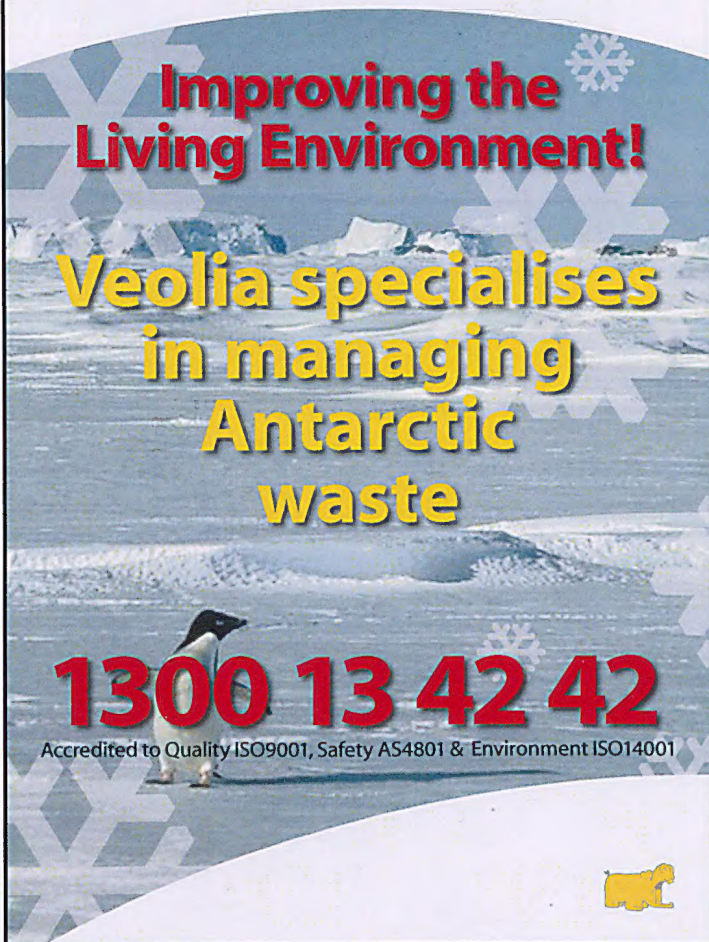
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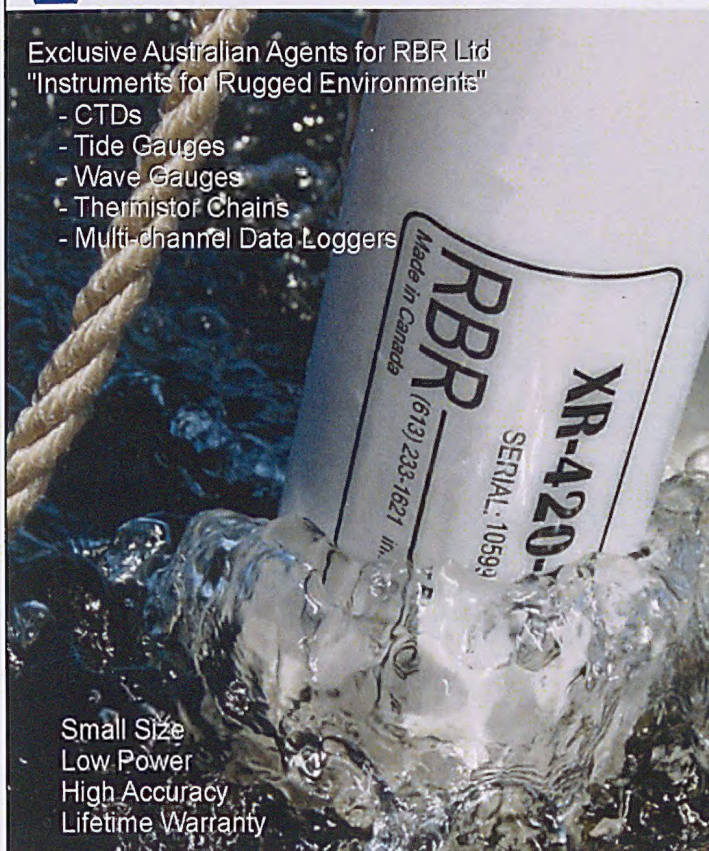
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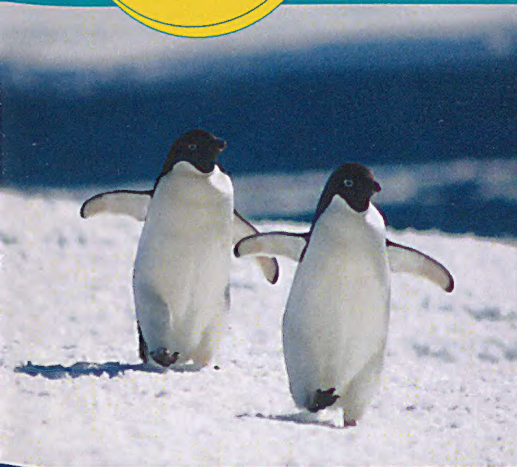


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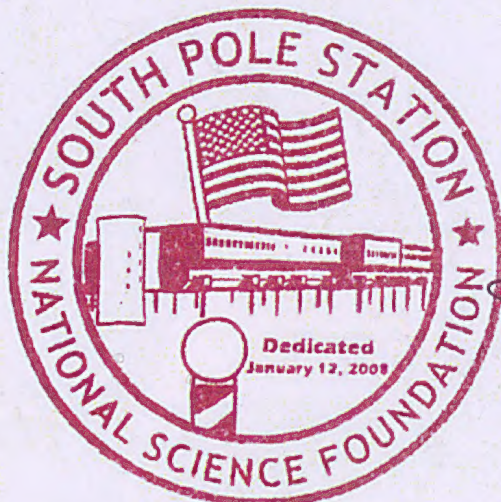
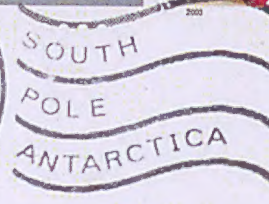


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